

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-SW-45-AD; Amendment 39-13530; AD 2004-06-04]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation Model S-76 A, B, and C Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S-76 A, B, and C helicopters with dual channel autopilot and dual inverters installed. This action requires a test to determine if the No. 1 inverter is wired to the DC essential bus, and if so, it requires modifying the wiring so that the No. 1 inverter is wired to the No. 2 DC primary bus and the No. 2 inverter is wired to the DC essential bus. If the wiring modification is required and is not performed before further flight, then revising the Rotorcraft Flight Manual (RFM) before further flight to limit the maximum instrument meteorological conditions (IMC) airspeed and installing a placard near the airspeed indicator is also required. The wiring modification is required within 30 days. This amendment is prompted by three incidents in which a No. 2 generator intermittent malfunction occurred and both autopilots disengaged. The actions specified in this AD are intended to prevent both autopilots from disengaging following a No. 2 DC generator failure, and subsequent loss of control of the helicopter during IMC operations.

DATES: Effective April 15, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 15, 2004.

Comments for inclusion in the Rules Docket must be received on or before June 1, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2003-SW-45-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: 9-asw-adcomments@faa.gov.

The service information referenced in this AD may be obtained from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Tech Support, 6900 Main Street, Stratford, Connecticut 06614, phone (203) 386-3001, fax (203) 386-5983. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Solomon Hecht, Aviation Safety Engineer, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7159, fax (781) 238-7170.

SUPPLEMENTARY INFORMATION: This amendment adopts a new AD for Sikorsky Model S-76 A, B, and C helicopters with dual channel autopilot and dual inverters installed. This action requires, before further flight, determining if the No. 1 inverter is wired to the DC essential bus, and if it is, modifying the wiring or installing a placard that limits the maximum IMC airspeed to 120 knots indicated airspeed (KIAS) as well as annotating the Operating Limitations section of the RFM to reflect this limit. Also, this action requires, within 30 days, for those helicopters with the No. 1 inverter wired to the DC essential bus, modifying the electrical wiring so that the No. 1 inverter, which powers the co-pilot's Automatic Flight Control System (AFCS) computer, is wired to the No. 2 DC primary bus and also modifying the electrical wiring so that the No. 2 inverter, which powers the pilot's AFCS computer, is wired to the DC essential bus. If installed, removing the placard and the RFM annotation is allowed after modifying the electrical wiring. This amendment is prompted by three incidents in which a No. 2 generator had an intermittent malfunction and both autopilots disengaged. The actions specified in this AD are intended to prevent both autopilots from disengaging following a No. 2 DC generator failure, and subsequent loss of control of the helicopter during IMC operations.

The FAA has reviewed Sikorsky Alert Service Bulletin (ASB) No. 76-24-14A, Revision A, dated October 9, 2003, which describes procedures for performing a test to determine if the No. 1 inverter is wired to the DC essential bus, and provides the required wiring modification to relocate the source for the No. 2 Inverter to the DC essential bus and to relocate the No. 1 Inverter to the No. 2 DC bus, if required. The ASB also provides for a temporary airspeed limitation of 120 knots indicated airspeed during IMC operations until the required wiring modification is completed.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD is being issued to prevent both autopilots from disengaging following a No. 2 DC generator failure, and subsequent loss of control of the helicopter during IMC operations. This action requires, before further flight, determining if the No. 1 inverter is wired to the DC essential bus, and if it is, modifying the wiring or installing a placard that limits the maximum IMC airspeed to 120 KIAS as well as annotating the Operating Limitations section of the RFM to reflect this limit. Also, this action requires, within 30 days, for those helicopters with the No. 1 inverter wired to the DC essential bus, modifying the electrical wiring so that the No. 1 inverter, which powers the co-pilot's AFCS computer, is wired to the No. 2 DC primary bus and also modifying the electrical wiring so that the No. 2 inverter, which powers the pilot's AFCS computer, is wired to the DC essential bus. If installed, removing the placard and the RFM annotation is allowed after modifying the electrical wiring. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability of the helicopter. Therefore, the previously described airspeed limitation reduction is required before further flight, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

The FAA estimates that this AD will affect 105 helicopters. The operational test will take approximately 1 work hour to accomplish and the wiring modification will take approximately 2 work hours to accomplish at an average labor rate of \$65 per work hour. The materials required to perform the modification consists of 2 wire sleeve markers whose cost is negligible. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$18,525 assuming that all 105 helicopters will be tested and about 90 helicopters will need the modification.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 2003-SW-45-AD." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-06-04 Sikorsky Aircraft Corporation: Amendment 39-13530. Docket No. 2003-SW-45-AD.

Applicability: Model S-76 A, B, and C helicopters, with a dual channel autopilot and with dual inverters installed, certificated in any category.

Note: The following serial-numbered helicopters were manufactured with the dual channel autopilots and dual inverters installed:

S-76 A Serial Numbers: 760267, 760268, 760270 through 760298, 760300 through 760302, 760304 through 760309, 760364, 760366, 760369 through 760371, 760373 through 760378;

S-76 B Serial Numbers: 760262, 760269, 760299, 760303, 760310 through 760363, 760365, 760367, 760368, 760372, 760379 through 760382, 760387, 760391, 760393, 760395, 760399, 760403, 760404, 760409, 760410, 760413, 760414, 760416, 760425, 760427 through 760430, 762976 (760433), 760437, 760439, 760441 through 760445, 760447 through 760452, 760454, 760455, 760458, 760462, 760465, and 760507; and

S-76 C Serial Numbers: 760383 through 760386, 760388 through 760390, 760392, 760394, 760396 through 760398, 760400 through 760402, 760405 through 760408, 760411, 760412, 760415, 760417 through 760424, 760426, 760431, 760432, 760434 through 760436, 760438, 760440, 760446, 760453, 760456, 760457, 760459 through 760461, 760463, 760464, 760466 through 760506, and 760508 through 760526.

Compliance: Required as indicated, unless accomplished previously.

To prevent both autopilots from disengaging following a No. 2 DC generator failure, and subsequent loss of control of the helicopter during instrument meteorological conditions (IMC) flight, do the following:

(a) Before further flight:

(1) Determine if the No. 1 inverter is wired to the DC essential bus by following the Accomplishment Instructions, paragraph 3.B. of Sikorsky Aircraft Corporation Alert Service Bulletin No. 76-24-14A, Revision A, dated October 9, 2003 (ASB).

(2) If the No. 1 inverter is wired to the DC essential bus, and the wiring modification is not accomplished as described in paragraph (b) of this AD, then before further flight, install a placard near the airspeed indicator that contains the limitation "Maximum IMC Airspeed 120 KIAS" and annotate this airspeed limitation in the Operating Limitation section of the Rotorcraft Flight Manual (RFM).

(b) Within 30 days, for those helicopters with the No.1 inverter wired to the DC essential bus, modify the electrical wiring so that the No.1 inverter, which powers the co-pilot's Automatic Flight Control System (AFCS) computer, is wired to the No. 2 DC primary bus and the No. 2 inverter, which powers the pilot's AFCS computer, is wired to the DC essential bus by following the Accomplishment Instructions, paragraph 3.C. of the ASB.

(c) After modifying the electrical wiring as required in paragraph (b) of this AD, remove the placard and RFM annotation.

(d) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Boston Aircraft Certification Office, Engine and Propeller Directorate, FAA, for information about previously approved alternative methods of compliance.

(e) The test, modification, revision and placard installation shall be done in accordance with Sikorsky Aircraft Corporation Alert Service Bulletin No. 76-24-14A, Revision A, dated October 9, 2003. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Tech Support, 6900 Main Street, Stratford, Connecticut 06614, phone (203) 386-3001, fax (203) 386-5983. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(f) This amendment becomes effective on April 15, 2004.

Issued in Fort Worth, Texas, on March 10, 2004.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 04-6777 Filed 3-30-04; 8:45 am]

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